DOCUMENT RESUME

ED 080 612 TM 003 131

AUTHOR	Crawford, Jack J.
TITLE	The Development of Revised Field Reader Evaluation Forms for Educational Research and Development Proposals. Final Report.
INSTITUTION	American Institutes for Research in the Behavioral Sciences, Palo Alto, Calif.
SPONS AGENCY	National Center for Educational Research and Development (DHEW/OE), Washington, D.C. Regional Research Program.
REPORT NO	AIR-33300-6-73-FR
PUB DATE	Jun 73
CONTRACT	OEC-9-72-0035
NOTE	78p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Data Sheets; *Evaluation Methods; *Formative Evaluation; *Research Proposals
IDENTIFIERS	*Field Reader Evaluation Form; Regional Research Program

ABSTRACT

The need for a revision of the Field Reader Evaluation Form used throughout the Regional Research Program, as well as by other programs in the Office of Education, is documented. An empirical development of a revised form was completed through two formative evaluation cycles. The revision was then subjected to a field test. Utilizing the revised form, field readers evaluated proposals which had previously been submitted to the Regional Research Program. As a control measure, previous evaluations were available. Comparisons with the existing form indicated that the revision provided greater objectivity and more comprehensive and specific coverage of proposal components. The mean number of comments and ratings per proposal obtained from four reviewers was 195 using the revision as compared to 48 via the old form. The revision provided equal inter-rater reliability. Decisions tended to be more critical, and favorable recommendations were more likely to impose conditions upon the proposed project. The revision provided more adequate bases for ranking proposals, including several alternative scales for ranking. A panel review judged the input from the revision to be a more useful evaluation for both decision makers and applicants. (Author/DB)

FILMED FROM BEST AVAILABLE COPY

ED 080612

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

AIR-33300-6/73-FR

TM

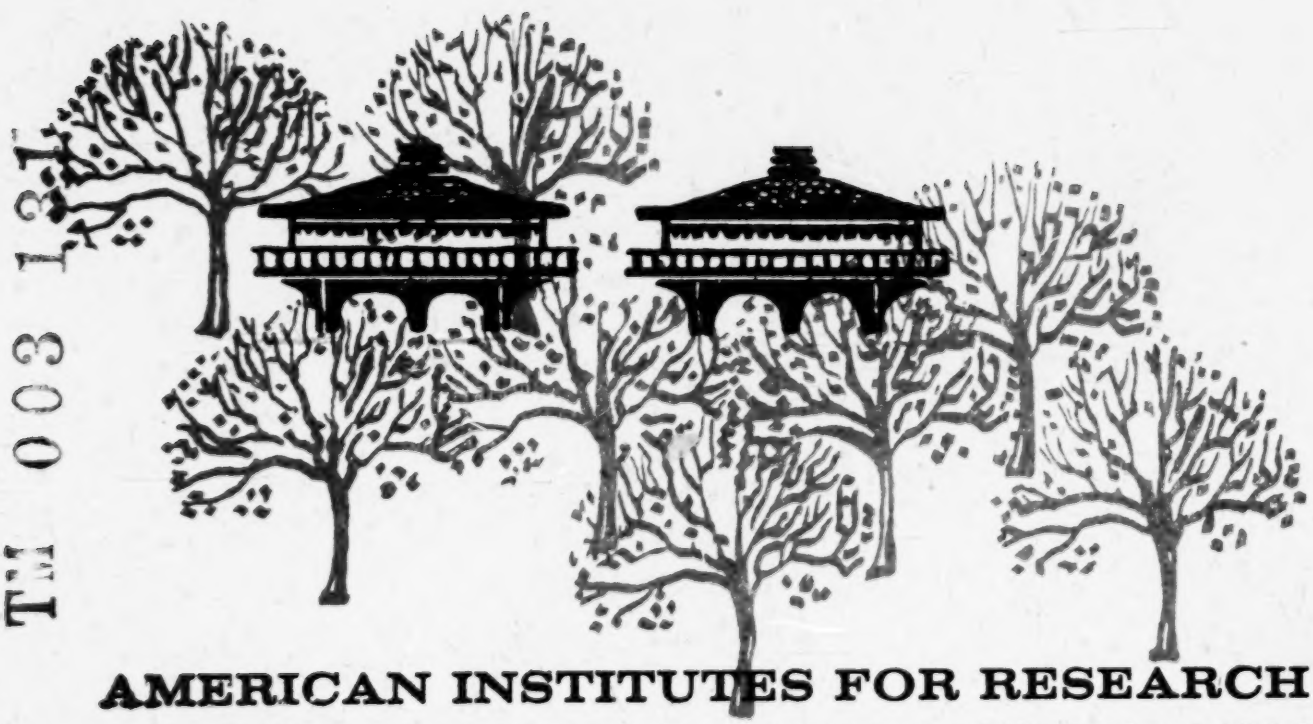
THE DEVELOPMENT OF REVISED FIELD READER EVALUATION FORMS FOR EDUCATIONAL RESEARCH AND DEVELOPMENT PROPOSALS

FINAL REPORT

Contract No. OEC-9-72-0035

June 1973

TM 003 131



AMERICAN INSTITUTES FOR RESEARCH
Post Office Box 1113 / Palo Alto, California 94302

AIR-33300-6/73-FR

ED 080612

THE DEVELOPMENT OF REVISED FIELD READER EVALUATION FORMS FOR EDUCATIONAL RESEARCH AND DEVELOPMENT PROPOSALS

FINAL REPORT

Contract No. OEC-9-72-0035

Jack J. Crawford
Senior Research Scientist

American Institutes for Research
in the Behavioral Sciences

Palo Alto, California

June 1973

The research reported herein was performed pursuant to a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

TABLE OF CONTENTS

LIST OF TABLES iii

LIST OF FIGURES iv

ABSTRACT v

PROBLEM 1

Background 1

Direction and Extent of Revisions Needed 4

OBJECTIVES AND EXPECTED PRODUCT. 7

PROCEDURES 8

General Approach 8

Initial Specifications for the Revision 10

Development of Measures to Assess the Degree of Attainment of Objectives of the Revision 12

Design and Tryout of the Initial Prototype 12

Additional Tryout, Evaluation, and Revision 13

Field Test 14

RESULTS. 15

Objective: The Revision Will Result in an Increased Number of Specific Evaluation Comments and Ratings . . . 15

Objective: Increased Inter-Rater Reliability 16

Objective: Provide a More Convenient and Reliable Basis for Ranking Proposals 18

Objective: Provide a More Useful Evaluation to Program Directors and Applicants 20

Evaluation Input from Field Readers of Proposal R-1 Via the Bureau of Research Form 23

Evaluation Input from Proposal R-1 Via the Revised Form . . . 25

CONCLUSION 35

REFERENCES 36

APPENDIX A: EXAMPLE OF EXISTING BUREAU OF RESEARCH FIELD READER EVALUATION FORM 37

APPENDIX B: EXAMPLES OF PROPOSAL EVALUATION FORMS USED BY VARIOUS AGENCIES 42

APPENDIX C: EXAMPLE OF REVISED FIELD READER EVALUATION FORM 62

LIST OF TABLES

TABLE 1. Number of Ratings by Individual Reviewer 15

TABLE 2. Reviewer Agreement on Recommended Disposition . . . 18

TABLE 3. Mean Ratings 19

TABLE 4. Summed Ratings Across Proposal Components 21

LIST OF FIGURES

Figure 1. Comparison of Total Ratings & Comments by Four Reviewers Using Old and New Evaluation Forms 17

ABSTRACT

The need for a revision of the Field Reader Evaluation Form used throughout the Regional Research Program, as well as by other programs in the Office of Education, is documented. A survey of similar proposal evaluation forms used in other federal agencies and foundations indicated that such forms had limitations similar to those of the form used by the Regional Research Program.

An empirical development of a revised form was completed through two formative evaluation cycles. The revision was then subjected to a field test. Utilizing the revised form, field readers evaluated proposals which had previously been submitted to the Regional Research Program. As a control measure, previous evaluations were available. These evaluations had been made utilizing the existing form.

Comparisons with the existing form indicated that the revision provided greater objectivity, and more comprehensive and specific coverage of proposal components. The mean number of comments and ratings per proposal obtained from four reviewers was 195 using the revision, as compared to 48 via the old form.

The revision provided equal inter-rater reliability. Decisions tended to be more critical, and favorable recommendations were more likely to impose conditions upon the proposed project. The revision provided more adequate bases for ranking proposals, including several alternative scales for ranking.

A panel review judged the input from the revision to be a more useful evaluation for both decision-makers and applicants.

PROBLEM

Background

This study was supported by a grant from the Regional Research Program of the Office of Education. The purpose of the study was to facilitate the proposal evaluation process by developing an improved evaluation form for use in reviewing proposals. The study was particularly intended to improve the proposal evaluations within the Regional Research Program, but also to assist proposal rating throughout the Office of Education.

The Regional Research Program was established in September 1966, and offices were opened in each of the DHEW regions across the country. The specific goals of the Regional Research Program were:

1. To support small-scale educational research projects.
2. To facilitate participation in research over a broad range of educational professionals.
3. To encourage small colleges to undertake research programs so that students may benefit from staff who are engaged in research activities.
4. To provide for direct and expeditious handling of proposals. The regional program was designed to simplify application procedures and to be more sensitive to grassroots needs. The program was particularly aimed at encouraging new researchers, those lacking extensive experience. A limit of $10,000 was imposed upon all grants.

All proposals submitted to the Regional Research Program were reviewed by field readers in that particular region. The field readers utilized a form supplied by the Bureau of Research of the Office of Education. This form was also widely used in other Office of Education evaluations of proposals. A copy of the form is contained in Appendix A.

The Bureau of Research Field Reader Evaluation Form thus played a key role in the annual investment of millions of dollars by the Office of Education. Through the use of this form, field readers arrived at a recommendation to approve or disapprove small project grant applications as well as applications for large grants and contracts throughout USOE.

There was evidence readily available from field readers, directors of the Regional Research Program, grant applicants, and third-party evaluators that this proposal evaluation form was in serious need of revision. Despite substantial evidence of the need for revision, and despite the importance of the form in the award of research grants and contracts, the Field Reader Evaluation Form had not been accorded the investment of systematic empirical development or revision. The reader should be aware that the Regional Research Program was terminated shortly after this project was initiated. The point is discussed under the Procedures section. Inasmuch as the old Field Reader Form was also used to evaluate a wide range of proposals, and was not limited to use within the Regional Research Program, an improvement of the form has potential impact beyond that program.

The cruciality of the evaluation forms is manifest in several aspects of the USOE funding program. The forms are the basis for the field readers' ratings and evaluation of proposals. In panel reviews of proposals, the forms are the basis for the panel discussions. The forms are usually the only recorded documentation of field reader evaluation and comments relative to each proposal. Feedback received by grant applicants as to the quality of their proposals must be derived from the forms. Thus, they shape the investment of funds and provide a basis for closing the feedback loop to the initiators of proposed projects.

The people who completed the forms--the field readers--felt that the forms needed revision. The author contacted more than 20 experienced field readers in Regions IX and X by letter, telephone, or personal conversation. All reported the need for and usefulness of revising the evaluation forms.

A comprehensive survey, funded by the Office of Education, confirmed the need for revision. A 1970 report by the Bureau of Applied Social Research, Columbia University, reviewed a number of aspects of the Regional Research Program (Rogers, et al., 1970). In this study, 423 field readers in all regions were polled through a mailed questionnaire. Over 75% of the field readers who returned the mailed questionnaires suggested various revisions in the evaluation form. Eleven suggestions for changing the evaluation form were provided by the Columbia team.

Unfortunately, the suggestions from the study were never implemented, and no revised form was developed for field study. These suggestions were given consideration in the present study.

A number of field readers, finding the forms inadequate for systematic evaluation of proposals, developed their own forms which they used as a first evaluation, and then translated their own evaluations onto the Office of Education forms. For example, one experienced field reader in Region IX used a 5-point scale for each of 22 separate criteria.

Similarly, the Directors of the Regional Research Program expressed the need for revision of the field reader forms. The author contacted seven of the ten Regional Directors. Three Regional Directors reported that they were actually using some modification of the form. Six of the seven were emphatic about the need and importance of revision. This was congruent with the findings of the Columbia study, in which nine Regional Directors were interviewed. All were in favor of revising the form, although details of specific suggestions were not contained in the report.

Although applicants do not typically use or even see the Field Reader Evaluation Form, reports from applicants also confirm the need for revision. In the Columbia study, which queried 665 applicants, 88% of the applicants who had requested an explanation of the funding decision were not satisfied with the reply. They wanted a relatively specific critique of their proposal. Instead, they received general comments and vague or gross judgments. The reasons for the dissatisfaction of grant applicants are readily apparent and hinge upon the inadequacy of the Field Reader Evaluation Form.

The Regional Research Offices were not overstaffed. For example, the only professional staff in the Regional Research Office was usually the director himself. Lack of time and resources prevented him from authoring or substantially editing a detailed evaluation of each proposal. The comments on the field reader forms were his only source of feedback to the applicant. Although most of the Regional Directors, and an overwhelming majority of the field readers (Rogers, et al., 1970), felt that field reader comments should be given directly to the applicant, the forms did not lend themselves to specific and useful feedback. The directors found

clarifying and editing comments a time-consuming task; often comments were too cryptic or difficult to interpret for the applicant.

For two years the author participated in the development of training materials designed to improve proposal writing skills for professionals in the research and development areas of education. The trainees were typically at the same professional experience level as the majority of those who made grant applications to the Regional Research Program--i.e. assistant professors, doctoral candidates, federal projects coordinators and directors of research for school districts, etc. Part of the training program involved the evaluation of proposals. Adequate feedback to the trainees could not be achieved with the Field Reader Evaluation Form. More detailed and specific rating scales, as well as provision for comments, were required. The approach finally evolved is described in other publications (Crawford & Kielsmeier, 1970; Kielsmeier, 1970).

Direction and Extent of Revisions Needed

The old Bureau of Research Field Reader Evaluation Form has been widely used throughout the Office of Education for a number of years. Its use was never limited to the Regional Research Program or to the small grants and contracts. It has been frequently used for the evaluation of large projects. Through the cooperation of the Director of Regional Research Program and the Contracts Officer in Region IX, the author was afforded the opportunity of reviewing the completed forms covering several years of proposals. Following is a summary of that review.

Stripped of instructions, identifying headings, etc., the old form consists of six major parts. They are:

1. The final decision of the reviewer, together with the recommended disposition of the proposal.

Four alternatives are allowed: approval, provisional approval, disapproval, and deferral. The reviewer is asked to provide a brief rationale for the decision. This item elicits only very brief statements. Perusal of over 300 completed forms revealed that most rationales were limited to two or three phrases, or at the most three or four sentences.

2. A five-point rating scale on which the reviewer makes an overall rating of the proposal, but only if he has recommended either approval or provisional approval.

Instructions on the form request the reviewer to be as specific as possible and use additional sheets if necessary in completing the next four parts. Such exhortations appear to have little effect. The author did not locate one instance in which additional sheets were used or required. Typically, the comments consisted of only a word or two.

3. Educational Significance. In parentheses are the following questions: Does the proposal address itself to an important educational problem? Does the proposal have a sound theoretical basis? Can the anticipated results be sufficiently generalized? What is the relation to similar known research?

The apparent attempt is to have the reviewer address each such relevant aspect of educational significance. Most reviewers, however, seem content with an overall sweep at this item.

4. Personnel and Facilities (Have the principal investigators the professional competence and experience to carry out the work of the proposal? Does the applicant or applicant organization give assurance of the necessary facilities--space, personnel, equipment, etc.--for performance of the work?) This section usually elicits very little comment. "Okay" or "appears adequate" are typical.

5. Research Design (Are the problems, objectives, procedures, and the relationships among all three clearly and logically stated? Does the statement of procedures to be followed include, where applicable, information on sampling techniques, controls, data to be gathered, instruments to be used, and statistical and other analyses to be made?)

Every aspect of methodology is lumped under this item. It is up to the reviewer how comprehensive and exhaustive his comments will be. Typically, reviewers comment on what they feel to be the most salient features of the proposal. They make no effort to exhaustively walk through objectives, designs, each aspect of the procedures, scheduling, analysis, etc.

6. Economic Efficiency (Is there a favorable relationship between the probable outcome of the project and the total effort expended?)

This is most frequently answered in a yes/no fashion. Rarely are any comments included.

Only one rating is required by the form--that for the overall proposal. The components are little more than general headings. The specificity and comprehensiveness of the comments are up to the reviewer. The form does not assist him with any kind of checklist or provide assurance that the reviewer attends to each major component of the proposal, let alone aspects within components. The form provides little in the way of assistance, requirements or restrictions. It is an open form, open to noise and subjectivity.

Communication from field readers and Regional Directors pointed to the need for the addition of more objective rating scales, provision for comments, as well as ratings on more specific aspects of the proposal, and the addition of more explicit criteria.

In the Columbia study 69% of the field readers suggested separate ratings and comments for personnel and facilities. Sixty-two percent suggested the inclusion of a rating scale for each item on the form. Thirty-six percent suggested the addition of a special perforated addition to the form which could be torn off. This perforated section would be available for comments directed exclusively to Office of Education personnel and not meant to be returned to the applicant.

The author's own experience and communication with other field readers and Regional Directors, in general, confirmed the feeling that the objectivity, specificity and usefulness of the form needed to be increased. However, the inclusion of a rating scale and checklist for specific items did not preclude provision for open-ended comments. The expansion and specification of the conglomerate grouped under "Research Design" into specific components of methodology appeared to have high priority.

The American Institutes for Research faced a similar problem in its Creative Talent Awards for doctoral dissertations. The program has been in effect for approximately ten years, and awards are made on a national basis to various categories of doctoral research dissertations in the fields of psychology and education. The review panel consists of the most distinguished figures in psychology and education. A roster of reviewers

resembles the list of past presidents of the American Psychological Association and the American Educational Research Association. Despite this highly selective identification of field readers, evaluations of dissertations were found early in the program to be uneven. Many evaluations were subject to the same criticism as the Field Reader Evaluation Forms, e.g. cryptic, gross, difficult to interpret, etc. The American Institutes for Research evolved a nine-point rating scale for each of a number of criteria regarding the dissertation. Adequate space for comments on each item was also provided. Although still subject to revision, this approach has resulted in considerably more specific and more useful evaluations and explanations of the basis of the evaluations. An analogous approach is now being extended within AIR to all of its final reports.

OBJECTIVES AND EXPECTED PRODUCT

The general objective of the proposed project was to develop a more effective field reader evaluation form. The revised form should provide more specific, comprehensive and objective evaluation of proposals than had been provided by the existing Bureau of Research form. The form needed to be designed so that it did not present an undue burden on scantily paid field readers, but rather facilitated their review of proposals. The form also needed to be designed so that specific and comprehensive feedback to applicants could be readily obtained directly from the form, with minimal editing burden placed upon Office of Education personnel. Feedback derived from such a revised form should provide a more adequate basis for the revision and improvement of proposals than has been feasible with the existing form.

The revised form should thus provide:

1. an increased number of specific evaluation comments and ratings relevant to proposal components;
2. a more objective evaluation with provision for open-ended explanations and comments;
3. increased inter-rater reliability across components and across total ratings;

4. a convenient and reliable basis for ranking proposals;
5. a more useful evaluation, as judged by directors of research programs and by proposal authors.

By developing a more effective form which would improve proposal evaluations this project should yield benefits to several major groups in the research community:

- USOE Research Programs, by providing a higher standard of proposal evaluation.
- Research grant applicants, by providing comprehensive critiques that will be more useful in improving the quality of subsequent applications.
- Field readers, by facilitating the application of their experience and knowledge to each proposal, and by providing a more adequate checklist and format.

PROCEDURES

General Approach

The approach used was an empirically-based product development approach. It is the approach frequently used in the systematic development of courses, curricula, and other educational materials. Steps cited as essential to the approach vary depending on the degree of detail deemed important (see Chapter III, "Instructional System Development" of the CORD National Research Training Manual, Crawford, et. al., 1969). However, an overall sequence such as that described for the present project is typical. The major steps include:

1. development of specifications;
2. development of measures to assess degree of attainment of objectives;
3. design, tryout, formative evaluation, and revision of prototype version;
4. additional tryout, evaluation, and revision;

5. design and conduct a field test of the system;
6. revision as indicated on the basis of the field test evaluation.

The project was originally designed to coordinate with the proposal evaluations of the Regional Research Program. Arrangements had been made with several directors to conduct tryouts with their field reader panels. However, after the project commenced, the Regional Research Program was terminated. The ten regional offices were closed and the directors were assigned to other programs. At the present date, the regional offices have not been reopened and will not be within the immediate future. The program which this project was intended to help has been wiped out. This raises the issue of why a form for a non-existent program should be revised.

An approved proposal evaluation form should have extended use beyond a particular program. We should note again that the old Bureau of Research form was used not only by the Regional Research Program, but also by many other programs. All programs that require the submission of proposals need effective proposal evaluation. Full and painstaking evaluation of these proposals is a must, whether it is done internally by staff members, by independent field readers via mail, or by a panel. An evaluation form is a useful facilitator under any of these conditions. For example, although panel members meet in a group to discuss the points of each proposal and arrive at some consensus, a common basis for starting the panel discussion is required. The author has observed a number of panels in which the initial degree of input for panel members was so varied that valuable time was wasted in working up to a useful common discussion. A properly designed form can provide a starting framework that offers reasonable assurance that each member of the panel has attended to the major points of concern within the proposal.

In addition, the function of the form to serve as feedback to the applicant is an important one. No matter what system of evaluation is used, the evaluation comments need to be structured so that they can be transmitted to the applicant with minimal burden to staff. In the panel approach, or any other approach, the comments of each reviewer of the panel can be clearly expressed on an adequate form. The subsequent task

of the applicant feedback can then be carried primarily by the evaluation form. Additional conclusions of the panel developed during meetings may also be added.

There is a need for an adequate proposal evaluation form in agencies other than the Regional Research offices.

Initial Specifications for the Revision

Directions for the design of the revision came from several sources. Included were: the Columbia Report (Rogers, et al., 1970); direct communication with directors of the Regional Research Program and field readers; the experience of the project director in developing proposal evaluation procedures for the CORD National Research Training Manual (Crawford, et al., 1969) and The Proposal Writing Manual and Workbook (Crawford & Kielsmeier, 1970); and the experience of staff at the American Institutes for Research in solving similar evaluation problems. Thoughtful suggestions from Dr. Walter Hirsch, Director of Regional Research for Region IX, were particularly useful to the project.

Initial specifications for the revision included the following:

1. The form should elicit a comprehensive set of comments from the reviewer covering all major components of typical proposals.
2. The form should facilitate specific rather than global comments.
3. Input from the form should be suitable for feedback to applicants. There should be minimal or no need for editing.
4. As much as possible, provision should be made for objective ratings throughout the form.
5. Provision must also be made for open-ended comments by reviewers.
6. The form must not impose a substantially greater time burden on the reviewer than the present form.

To obtain a broader range of input, inquiries were directed to 35 offices of the federal government and several major foundations

Each respondent was asked to provide proposal evaluation forms that had been used by his or her agency, or that had been used by other agencies. Inquiries were directed to offices of the following federal agencies and foundations:

Department of Agriculture
Department of the Army
Department of Commerce
Department of Health, Education & Welfare
    Social and Rehabilitation Services
    Social Security Administration
    U.S. Office of Education
Department of Justice
Department of Labor
Department of the Navy
National Institute of Education
National Institutes of Health
National Science Foundation
Department of Transportation
Veterans Administration

Carnegie Corporation of New York
The Ford Motor Company Foundation
Rockefeller Foundation
Russell Sage Foundation

Twenty agencies responded. The majority of those responding indicated they did not employ a proposal evaluation form. Several federal agencies indicated that they design an evaluation form for each set of contract proposals submitted in response to an individual RFP (Request for Proposals). The effectiveness and cost effectiveness of creating a new form for each solicitation seems open to question.

A total of 11 agencies indicated that they were using proposal evaluation forms. Examples of these forms are included in Appendix B. The similarity of these to the Bureau of Research form is close. In fact, one of the forms, OE Form 9020, is almost identical except that

ratings are requested for each major section. Problems associated with the Bureau of Research form, such as lack of objectivity, failure to generate specific comments across the major dimensions of proposals, etc., would appear to be equally associated with the other forms located. However, all forms obtained were reviewed for suggestions as to format, dimensions, rating procedures, etc.

Development of Measures to Assess the Degree of Attainment of Objectives of the Revision

Measures were keyed to the objectives identified previously. Measures that appeared to be most appropriate include:

1. A measure of the extent to which use of the form results in a comprehensive critique of a proposal. This involved counting and a weighted summation of the number of specific objective ratings and comments dealing with the major components of a proposal.
2. Inter-rater reliability with respect to the summative ratings of the proposal and the recommendations for funding.
3. Ranking proposals via the form. The degree to which the form provided a reliable and useful means of ranking, particularly ranking proposals in the approved category.
4. The usability of the form as measured by time required to complete it and its adequacy and appropriateness as judged by experienced field readers.

Design and Tryout of the Initial Prototype

An initial prototype was designed following the specifications described above. The initial selection of the format, extent and content of the form required a series of decisions involving trade-offs among alternative solutions. A number of alternatives were included in the first phases of tryout.

The form was then given a tryout utilizing a simulated proposal review by each of five senior AIR staff members. Following the

tryout, each reviewer, working independently, critiqued the form via a written evaluation, including an item-by-item review. Following this, each reviewer discussed his critique and his suggested revisions individually with the project director.

Input derived from this step was voluminous. Recommendations ranged from detailed changes in the wording of an item through a discussion of major alternative approaches to the overall problem of evaluation. Changes which were congruent with the original objectives, and which were supported by a consensus of the panel, were incorporated into the second prototype. Revisions that were conflicting or discrepant with other attributes of the form or presented potential disadvantages with respect to the original objectives were subjected to a series of trade-offs.

A second version of the revised form was readied for a tryout. At this time several noticeable features of the revision included:

1. Provision for rating each item. Every attribute of the proposal identified by the form was tied to a rating scale.
2. Provision for reviewers' comments on each item, rather than by major sections only.
3. Provision for the attributes of both developmental and research proposals within a single form.
4. Provision of a separate section for comments addressed to the funding agency only. Part of the instructions informed reviewers that their other comments could be sent directly to applicants but that this section would be treated confidentially.

Additional Tryout, Evaluation, and Revision

It was originally intended to send the prototype form to the directors of the Regional Research Program for a tryout with field readers in their area. This procedure was impossible after the collapse of the Regional Research Program. As an alternative approach,

a list of former readers in Regions IX and X was compiled, and the cooperation of a panel of these experienced reviewers was obtained. The prototype form was then sent to each of 12 field readers, together with a statement of the project objectives. An additional form was also prepared on which field readers rated the adequacy of the revision. For comparison purposes, a copy of the existing Bureau of Research form was attached. Twelve field readers then rated each item of the revised form, and compared the new form with the old one in light of the objectives of the project.

The overall results, comparing the revision to the old form, were almost unanimously favorable to the revision. More specific inputs from this evaluation were in the direction of simplifying and shortening the new form. At this time the revision extended to 12 pages. The more global items were sharpened or eliminated. Several redundancies and ambiguities were identified and removed. Increased emphasis was given to those attributes of proposals which dealt with the statement of a problem. This third revision of the form was then readied for a field test.

Field Test

From the files of the Regional Research Program in Region IX eight previously submitted proposals were selected. Four of these were research and four developmental proposals. Within each set of four, two had been approved for funding and two had been approved or provisionally approved, but had not been funded. Evaluations by four field readers, using the old Bureau of Research form, were available for each proposal.

All identifying names, institutional affiliations, geographic locations, etc., were then removed from each proposal which became "real" but anonymous. From a list of the former field readers in Regions IX and X a sample of 16 readers was selected. These readers possessed similar qualifications to those used in the previous tryout. However, no one who had served in that formative evaluation participated in the field test.

The cooperation of each reader was requested. Fifteen agreed. An additional name was selected from the field reader list to substitute for the sixteenth, who was too busy to participate. Two proposals,

together with copies of the new form, were mailed to each reader. The readers were instructed to evaluate the proposals using the new form in a similar fashion to that which they had followed for the Regional Research Program. Each field reader received one research and one developmental proposal. By using this design, four independent evaluations by field readers using the new form were obtained for each proposal. As a comparison basis, the four original evaluations from the old form were available. Thus, the results of the field test were based on eight proposals, each of which had four evaluations via the old form and four evaluations via the new form.

After reviewing the proposals, each field reader also completed an evaluation of the new form, using an instrument especially prepared for this purpose. Following the return of the materials, each reader received an honorarium comparable to that offered under the Regional Research Program.

RESULTS

The results will be examined in light of the objectives of the project.

Objective: The revision will result in an increased number of specific evaluation comments and ratings.

Did the new form yield such an increase? With respect to ratings, the total number of ratings derived from the old form was 30 for the 32 evaluations of the eight proposals. This represents a mean of less than one rating per proposal by each reviewer. The revised form yielded 891 ratings, with a mean of 28 ratings per proposal by each reviewer. The quantity of ratings is summarized in Table 1.

TABLE 1

Number of Ratings by Individual Reviewer

	Range*	Mean*	Total
Old Form	0-5	1	30
New Form	20-31	28	891

*These figures refer to the number of ratings made on a proposal by each reviewer. Thus, the mean number of ratings made on a proposal by one reviewer using the new form is 28.

As noted, ratings from the old form total 30, somewhat less than the total number of reviews, 32. This is due to the instruction on the form which directed the reviewer to rate only acceptable or provisionally acceptable proposals. Two reviewers recommended against funding, and so did not rate that proposal.

How specific were the ratings? The one rating yielded by the old form was a global rating with respect to the overall adequacy of the proposal. The revised form provides for 25 specific ratings. There are five specific ratings regarding aspects of the problem; two specific ratings regarding objectives; ten regarding procedures; five on personnel and facilities; and three on impact and effectiveness. There are, in addition, five ratings which relate more globally to proposal components. The revised form used in the field test is contained in Appendix C.

The total number of comments obtained from the old form was 310. The revision yielded 671. The mean number of comments per proposal are respectively 9.7 for the old form and 21.0 for the revision.

The differences in relative number of ratings and comments elicited are illustrated in Figure 1, which presents a comparison for each of the eight proposals.

Statistical tests for mean differences between the old and the new forms with respect to comments per proposal, ratings per proposal, and both comments and ratings indicated that those differences exceed the .001 level of probability.

Objective: Increased inter-rater reliability.

Achievement of this objective should be revealed in increased agreement among reviewers of a proposal. The two forms differed markedly internally; however, both did request a final decision using three similar alternatives: approval, provisional approval, and disapproval. Actually, he old form provided a fourth alternative--deferral. For the present purpose, we may appropriately combine the fourth alternative with disapproval so that both forms present the same alternatives.

Furthermore, the categories of provisional approval and approval both represent favorable recommendations by the reviewer. In the latter

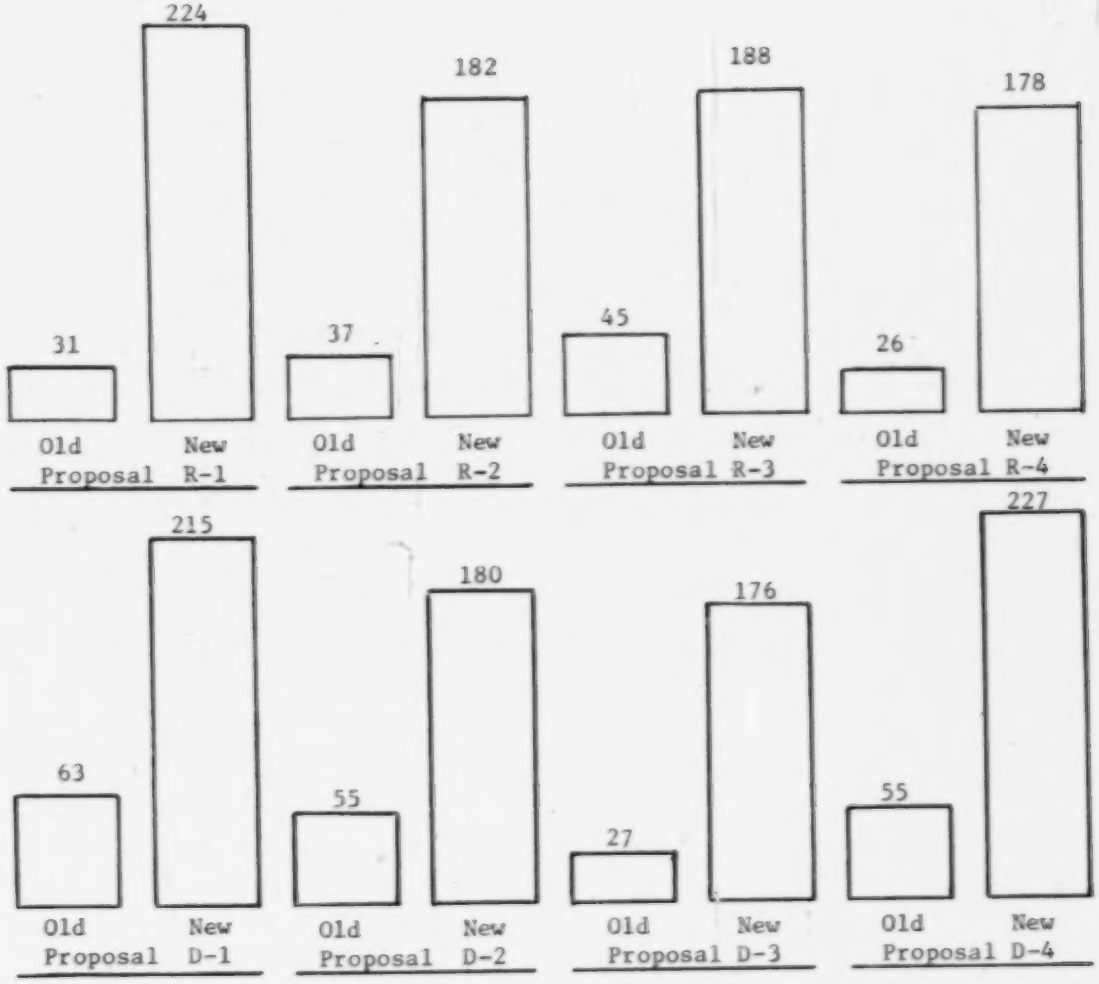


Figure 1

Comparison of Total Ratings & Comments
by Four Reviewers Using Old and New Evaluation Forms

case, suggestions are included in the decision or requests for additional information are made. Frequently, in the author's experience using the old form, proposals with provisional approvals were accompanied by as high or higher ratings than approved proposals.

What was the degree of unanimity among the decisions of the four reviewers of each proposal? With the old form, there was 100% agreement on final disposition among the reviewers on six of the eight proposals. On two proposals, there was 75% agreement, i.e. three of the four reviewers agreed. With the revised form seven proposals showed 100% agreement on final disposition and the remaining one showed 50% agreement. The degree of variance of reviewer decisions is shown in Table 2.

TABLE 2

Reviewer Agreement on Recommended Disposition

	100% Agreement	75% Agreement	50% Agreement
Old Form	6	2	0
New Form	7	0	1

The spread of decisions using the revised form is accompanied by a tendency to arrive at more critical recommendations. Across the eight proposals, two reviewer recommendations for disapproval were given on the old form. Using the revision, ten recommendations for disapproval were obtained. In addition, recommendations for provisional approval rather than approval were more frequent. Reviewers tended to suggest more conditions that should be met before funding.

Objective: Provide a more convenient and reliable basis for ranking proposals.

The only basis for ranking using the old form was the single overall rating. Typically, proposals in the approved category and those in the provisionally approved category were ranked, based upon the mean overall rating given by the several reviewers. The old form provided only this one rating as a basis for ranking. If proposals were tied in overall ranking, no objective index was available to break the ties.

The new form, however, provides in addition to the overall rating, a rating for each major proposal component. Thus, the reviewer rates the proposal in terms of the sections dealing with problems, objectives, procedures, personnel and facilities, efficiency/effectiveness. Utilizing these component ratings, other indices such as a simple sum or mean are readily available in addition to the overall rating.

Furthermore, the form provides 25 specific ratings other than the summative ratings of components. Indices are also readily derived from these specific ratings, for example, a summed score across the specific ratings. Thus, as an initial basis, the new form provides three measures, any, all, or combinations of which could form the basis for ranking: mean overall rating of the proposal; mean ratings of the proposal components; and the mean specific ratings. In Table 3 indices are shown for the eight proposals used in the field test. It is apparent from this that the first three proposals are in a three-way tie if we use the mean overall rating derived from the old form. Using the new form, this is not the case. Perhaps this is due to the use of a nine-point scale for rating. However, the new form also provides adequate information so that proposals may be ranked not only on measures of overall rating, but ranked with respect to proposal components and specific ratings. Thus, using the revised form, one might rank the eight proposals either by mean component ratings, by mean specific ratings, or by combinations of these with overall ratings.

TABLE 3

Mean Ratings

	Old Form	New Form		
Proposal	Mean Overall Rating	Mean Overall Rating	Mean Component Rating	Mean Specific Rating
R-1	2	4.51	4.75	4.83
R-2	2	5.22	5.45	5.41
R-3	2	4.00	5.00	4.95
R-4	4	5.00	5.23	5.24
D-1	2.50	4.33	4.80	5.48
D-2	1.25	6.75	5.37	5.90
D-3	1.50	5.00	4.80	4.99
D-4	3	2.50	2.70	3.23

Further information is provided by the new form with respect to each component of the proposal. Ratings are available separately for the five major components of each proposal. In Table 4 summed ratings for both specific and overall components are presented for these five dimensions of each of the eight proposals.

In Table 4 the eight proposals are shown together with sufficient information to rank them by components. Other indices are readily derivable. For example, the overall rating could be summed with the sum of the ratings for components. The form lends itself to the development of both simple and more esoteric scales. The proposals can be ranked on each component and an overall sum derived based on mean rank across components; or a weighting procedure could be added so that one or more components, e.g. the significance of the problem, is given additional weight. The revision represents a significant advance over the old form in making available additional information by which proposals may be usefully ranked.

Objective: Provide a more useful evaluation to program directors and applicants.

We had originally intended to obtain evidence regarding the usefulness of the revision through a trial run in the Regional Research Program. Feedback from the Regional Directors and proposal applicants would have been obtained. However, the untimely demise of that program prevented this.

Six senior research scientists at the Palo Alto office of AIR were presented with the old and the revised forms, together with the resulting evaluations on the field test proposals. They were then asked to rate the degree to which the revision resulted in a more or less useful evaluation. The results were unanimous in identifying the marked superiority of the revision. A similar degree of preference was shown by junior staff using the same procedures. Junior staff were selected whose experience was comparable to that of the graduate student or junior-level professor (who were the applicants for whom the Regional Research Program was mainly intended).

TABLE 4

Summed Ratings Across Proposal Components

Proposal No.	Problem		Objectives		Procedures		Personnel/Facilities		Efficiency/Impact	
	Specific	Overall	Specific	Overall	Specific	Overall	Specific	Overall	Specific	Overall
R-1	116	22	31	17	169	17	105	19	62	20
R-2	119	27	44	21	187	19	111	25	40	17
R-3	101	21	43	19	157	19	78	20	50	17
R-4	122	26	38	21	180	22	58	17	48	15
D-1	114	21	24	12	139	26	131	29	45	17
D-2	120	24	35	21	245	26	61	19	69	16
D-3	94	14	44	21	120	16	89	18	72	24
D-4	71	15	26	15	93	9	49	9	30	8

To assist the reader in forming his or her own judgment of the usefulness of the form, we have compiled comparable evaluations of one proposal. The evaluations of four field readers are combined into one form. First the old form is presented, then the new form. (These are presented at the end of this section, beginning on page 23.)

Several factors in addition to inter-rater reliability bear upon the usefulness of the revision:

1. Does it require an inordinate amount of time to complete? The experience of the developers indicated that all staff completed evaluations of small grant proposals within one hour using the revised form. This appears to be borne out by the field test. Several reviewers estimated their time as one hour or less per proposal. Of the 16 reviewers, 13 judged the time required as reasonable. Three felt it required too much time, particularly for small grant proposals.

2. Does the form cover all major proposal dimensions?

Thirteen of the field test reviewers affirmed that it did. Three felt some additions should be made. Those additions specifically suggested were among those the project staff had considered and finally rejected in the early prototype development. The suggestions included: additional ambiguity-clarity items; separately identified process and product objectives; and some items on reliability and validity of instruments and procedures.

3. Is the form adequate for both research and development proposals?

We had asked this question continually throughout the project. Eleven of the twelve field reader reviewers of the second prototype trial judged that version adequate for both kinds of proposals. On the field test, twelve of the reviewers judged it adequate. Four felt that it did not adequately cover developmental proposals. Suggested changes were: more emphasis on evaluation and use of product; and more items on economic efficiency.

In response to the question of what should be consolidated or eliminated, most reviewers (10 of 16) replied that the form was not over inclusive or redundant. Specific suggestions for elimination tended to be varied and contradictive. One reviewer's redundancy was another's meat. Two general suggestions for reducing the length of the form were:

1. Eliminate the overall ratings within proposal components.

2. Provide one space for comments for each proposal component rather than for each item.

Both of these suggestions had been considered and had appeared on an early prototype. The second suggestion does result in a marked reduction in paper and pages required for the form. However, both were rejected on the grounds that they reduced the useful input from reviewers.

Evaluation Input from Field Readers
of Proposal R-1 via the Bureau of Research Form

A. Educational Significance

1. Support for the proposed longitudinal study of preschoolers is to be highly recommended on several counts: First, it examines centrally important education problem areas. Second, the present study if based on extensive prior work (testing of 800 3-4 year olds). Not to follow up with these children now would be very wasteful. Third, the problem is well defined and will be directed by a well respected, productive researcher. Fourth, the study will contribute to needed developments of mental tests for the young preschool and primary grade child. This proposal is for a longitudinal step in an important (major) study of the development (emergence) of divergent thinking and relationships of that development to parental and environmental factors.

2. Positive on all counts.

3. The problem is important and relevant. The theoretical basis is good. The results will be generalizable. Other related research is identified in the proposal.

4. Excellent--while a theoretical framework is not spelled out in this proposal, such a framework does exist. I must admit to some disappointment in not finding such material in this proposal.

B. Personnel and Facilities

1. Staff and facilities most adequate.

2. Excellent.

3. Good.

4. Adequate.

C. Research Design

1. No negative comment.

2. General design is completely satisfactory. Lacks details of specific analyses, but I do not believe these to be necessary for an experienced researcher in this field of endeavor.

3. All is adequate--that which is not specified in the proposal one could infer with relative safety that the investigator has the required competence to provide the necessary expertise.

4. While I approve this proposal, the following precautions should be reemphasized:

   (1) The analyses alluded to in #1 of this critique should be noted.

   (2) All of the questions and/or hypotheses which this research is supposed to answer and/or test should be spelled out very carefully. This is perhaps the most neglected area in this proposal.

D. Economic Efficiency

1. Budget appears reasonable.

2. Very low cost for a study of this nature.

3. Excellent--it is a bargain at the price due to already completed work.

4. Okay.

Evaluation Input from Proposal R-1 via the Revised Form

PROBLEM

1. Significance of the problem to society:

1	2✓	3	4	5✓	6	7	8✓✓	9
	Minor			Moderate			High	

Comments (as part of your comments, specify the area within which you are rating the significance of the problem):

A. Problem is especially acute in urban centers. But, has much generalizability to suburbs.

B. Distinction between cognition and productive thinking is important; little explored in preschool child. Significance is not communicated adequately in this proposal, however.

C. No comment.

D. Of little social impact except in the broad academic sense.

2. Significance of the problem to science (or to the general advancement of knowledge):

1	2	3	4	5	6✓	7✓	8✓✓	9
	Minor			Moderate			High	

Comments (as part of your comments, specify the area within which you are rating the significance of the problem):

A. The problem as stated by the investigator would tend to add knowledge to the developmental worker and to the vast contribution of Piaget, et al.

B. Changes over a 2-year period in cognition, convergent thinking, and divergent thinking is significant problem--probably generalizable to similar socioeconomic, and cultural groups. Relation of these factors to the problem is not clear.

C. No comment.

D. The conceptual area--it will be useful to learn of the developmental sequences of thinking processes and ability in early ages. Also, the relationship between parental activity and children's thinking.

3. Clarity of statement of the problem:

1	2✓	3	4	5✓	6	7✓✓	8	9
Inadequate				Moderate				Excellent

Comments:

A. Well stated. Calls for collection of data over longitudinal period.

B. Purpose seems to be to develop an instrument, which is not stated as the problem or the objective.

C. No comment.

D. Quite straightforward.

4. Relationship of the problem to theory:

1	2✓	3	4	5✓✓	6	7	8✓	9
Not clear or reflects lack of understanding				Moderate			Clearly Integrated	

Comments:

A. Selected related research contributed significantly to the problem and its definition.

B. Review of research on cognitive theory is seriously needed; or investigator's own definitions of terms. Why are Guilford's other "operations" left out? Is there not some relation of Guilford's "content" dimension? "Product"--on what basis is the classification of items made (p. 6)? Relationship of Guilford and Piaget?

C. No comment.

D. Does not get into underlying assumptions to any sufficient extent, except to relate the competition for conformity processes with creative or divergent processes.

5. Relationship of the problem to previous research (or development):

1	2✓	3	4	5✓	6	7✓	8	9✓
Not clear, incomplete, or reflects lack of understanding				Moderate			Clearly stated and well integrated	

Comments:

A. Obviously the investigator has done work in the area and should be encouraged to complete this facet.

B. Reflects lack of knowledge of previous research; lack of search. Such a review should suggest hypotheses on the "changes" and developmental consistencies. I frankly don't believe the "suggestive evidence" from the four-year-old study and find no evidence for believing.

C. No comment.

D. No comment.

6. My overall rating of the problem section of this proposal is:

1	2	3√	4	5√	6	7√√	8	9
	Inadequate			Adequate			Excellent	

Comments (Please include your ratings and comments on any important dimensions of the proposal not covered by the previous items.)

A. This evaluator was delighted to observe the identification of many variables which can affect preliterate children.

B. Lack of knowledge on cognitive development in age group the investigator proposes to study. Related studies are cited, but any particular contribution or relevance to present study is obscure. References are not consistent with citations so a reviewer can't verify the statements.

C. No comment.

D. No comment.

OBJECTIVES

1. Relationship of the objectives to the stated problem:

1	2√	3√√	4	5	6	7√	8	9
Obscure, incomplete, or reflects lack of understanding				Moderate			Well integrated and appropriate	

Comments:

A. Objectives not identified as such. Use three questions which are inferred as objectives. Yet, an objective points to some clearly identified end.

B. Questions reflect interest in rearing as dependent variable, statement of problem suggests longitudinal changes in cognitive style.

C. No comment.

D. No comment.

2. Extent to which the objectives are stated in measurable terms:

1	2√	3√	4	5√	6√	7	8	9
	Inadequate			Adequate			Excellent	

Comments:

A. For a developmental study they are OK. To a strict behaviorist, these objectives are not acceptable.

B. They could be. I don't think they have been.

C. No comment.

D. Problem is that data from parents is essentially self-report data, with the inaccuracies inherent in them.

3. My overall rating of the objectives section of the proposal section is:

1	2√	3√	4	5√	6	7√	8	9
Inadequate				Adequate				Excellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

A. Would prefer to observe carefully stated series of objectives.

B. I don't know what the objectives are.

C. No comment.

D. No comment.

PROCEDURES

1. The appropriateness of the design of the project to the solution of the problem is:

1	2√	3√	4	5	6	7√√	8	9
Inadequate				Adequate				Highly appropriate

Comments:

A. Most of the relevant variables are identified. But the researcher may have already lost valuable data as the subjects grow older!

B. Difficult to know when hypotheses are not clear.

C. No comment.

D. Not clear as to how the sample will be drawn from the estimated 800 overall. Expected is about 200. What do the remainder look like?

2. The relationship of the procedures to the implementation of the design of the project is:

1	2√	3	4√	5	6	7√√	8	9
Obscure or inadequate				Adequate				Excellent

Comments:

A. These are congruent.

B. Relationship between previous and present research is not clear. Procedure is not clear. Analysis of data is not prescribed.

C. No comment.

D. The questionnaire data seems to require a very large matrix.

3. Provisions for baseline or comparison groups:

1	2 ✓	3	4 ✓	5	6✓	7✓	8	9
	Inadequate			Adequate			Excellent	

Comments:

A. There may be a loss of subjects due to time factor. No where did investigator identify the precise number of subjects, their general accessibility, or where they are located.

B. No provision for considering original selection (mother's education) in follow-up group.

C. No comment.

D. See item 1.

4. Description of population and sample is:

1	2✓	3	4✓	5 ✓✓	6	7	8	9
	Inadequate			Adequate			Clear & appropriate	

Comments:

A. Could be more carefully described. What are numbers, range of ages, location, ease of accessibility. This was very generalized.

B. IQ seems to be a function of intellectual production. Sample not measured for IQ.

C. No comment.

D. No comment.

5. Appropriateness of the sample selection procedures is:

1	2✓	3✓	4 ✓	5 ✓	6	7	8	9
	Inadequate			Adequate			Highly appropriate	

Comments:

A. Some tendency to place <u>blame</u> on the NIE and those reviewing the proposal for the investigator's lack of foresight and planning to develop the proposal. Seemed to be an "If you don't hurry and fund this, you'll be sorry" implication.

B. If results are to be generalized to non-whites, it is inadequate.

C. No comment.

D. Unclear.

6. Extent to which controls are provided:

1	2√	3√	4	5√	6	7√	8	9
	Inadequate			Adequate			Excellent	

Comments:

A. Basically, previously collected data will be the control data. In this sense, #6 is N/A.

B. Not needed if the study were truly longitudinal or follow-up were more complete. One-quarter of original sample is not adequate.

C. No comment.

D. Difficult to retain consistent controls on this type of problem.

7. Measures specified to assess the attainment of project objectives:

1	2√	3	4√	5√	6	7	8√	9
	Inadequate			Adequate			Excellent	

Comments:

A. Test construction and methodology well specified.

B. Home questionnaire is superficial--does not get at nature of interaction between parent and child.

C. No comment.

D. Essentially correlational.

8. Data collection procedures are:

1	2√	3	4√	5√	6√	7	8	9
	Inadequate			Adequate			Excellent	

Comments:

A. The interview schedule is too "loose." Needs more continua rather than absolutes. Yes-no category is not relevant--note requests for time with child, talking to him, etc.

B. Interview is poor. Derivation of test is unclear.

C. No comment.

D. Except that it will be necessary to bear in mind that the parental data have only self-report validity, the procedures are adequate.

9. The appropriateness of the data analysis is:

1	2✓	3✓	4✓	5	6	7	8✓	9
	Inadequate			Adequate			Highly appropriate	

Comments:

A. Should yield results.

B. Difficulty level--how?
Reliability--how?
Factor analysis--how?

C. No comment.

D. Not particularly clear--reader must infer adequacy.

10. The extent to which the project schedule is appropriate to the tasks is:

1	2	3✓ ✓	4	5✓	6✓	7	8	9
	Inadequate			Adequate			Highly appropriate	

Comments:

A. Project schedule very sketchy; not well developed.

B. No comment.

C. No comment.

D. OK.

11. My overall rating of the procedures section of the proposal is:

1	2✓	3✓	4	5✓	6✓	7	8	9
	Inadequate			Adequate			Excellent	

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

A. (1) Instruments should be revised to eliminate absolutes; (2) time schedule is inadequate; (3) the subjects' whereabouts and availability is non-existent.

B. Investigator appears to lack skill to do this study--unless she has skills not used in the writing of the proposal.

C. No comment.

D. No comment.

PERSONNEL AND FACILITIES

1. Qualifications of staff to conduct this project:

1	2✓	3	4	5	6✓	7✓	8✓	9
Inadequate				Moderate				Excellent

Comments:

A. Seems to be long-time researcher.

B. See above.

C. No comment.

D. No comment.

2. Extent to which staff capabilities are related to task requirements:

1	2✓	3	4	5	6✓	7✓	8✓	9
Inappropriate--too junior- or top-heavy				Moderate				Highly appropriate

Comments:

A. No comment.

B. Too unsophisticated.

C. No comment.

D. No comment.

3. Time commitments to the project from staff:

1	2	3	4	5 ✓✓	6 ✓	7 ✓	8	9
Inadequate--under-staffed or overstaffed				Moderate				Highly appropriate

Comments:

A. Seem to be adequate.

B. No comment.

C. No comment.

D. No comment.

4. Space, equipment, and other facilities for this project:

1	2	3	4 ✓	5 ✓✓	6	7	8✓	9
Inadequate				Adequate				Excellent

Comments:

A. Spelled out in proposal.

B. No comment.

C. No comment.

D. No comment.

5. Organizational support for the project, including commitments from cooperating organizations if necessary:

1	2	3	4 ✓	5 ✓✓	6	7	8 ✓	9
	Inadequate			Adequate			Excellent	

Comments:

A. OK.

B. No comments.

C. No comments.

D. No comments.

6. My overall rating of this section of the proposal is:

1	2	3 ✓	4 ✓	5 ✓	6	7 ✓	8	9
	Inadequate			Adequate			Ex ellent	

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

A. No comment.

B. Principal investigator does not seem to know the contemporary field of cognitive development or cognitive style, or intellectual functioning in preschool children.

C. No comment.

D. No comment.

EFFICIENCY/IMPACT

1. The relationship between the specified costs of the project and the proposed activities is:

1	2	3	4 ✓	5 ✓	6	7 ✓	8 ✓	9
	Inappropriate			Moderately appropriate			Highly appropriate	

Comments:

A. To complete a longitudinal study for this cost is a great bargain--assuming previously done studies were adequately conducted.

B. No comment.

C. No comment.

D. No comment.

2. The relationship between the probable outcome of this project, in terms of its contribution and the investment required, is:

1	2✓	3	4✓	5	6	7✓	8✓	9
Unfavorable				Moderate				Highly favorable

Comments:

A. Adds to field of child development. Continues what could be a major longitudinal study.

B. No comment.

C. No comment.

D. No comment.

3. Provisions for dissemination/diffusion of the results of the project are:

1	2✓	3✓	4	5✓	6	7✓	8	9
Inadequate				Adequate				Excellent

Comments:

A. Not well identified.

B. Vague.

C. No comment.

D. No comment.

4. My overall rating of this section of the proposal is:

1	2✓	3	4✓	5	6	7✓✓	8	9
Inadequate				Adequate				Excellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

A. Considering that all USOE/NIE projects are placed into the ERIC system and that professors always publish (or try to), their research results, it might be assumed that this section is adequately managed.

B. An exciting area of investigation, but proposal is lacking a suitable design.

C. No comment.

D. No comment.

CONCLUSION

This revision appears to have achieved its objectives. It provides considerably more evaluative input in the way of specific ratings and comments than were obtained with the existing form. In addition, the revision presents a more objective basis for this input. Decisions reached by using the new form display as great a degree of inter-rater reliability as before. However, the decisions are more critical and are more often accompanied by conditional requirements. The form is generally suitable to both research and development proposals. It provides an extensive basis for comparative rankings of proposals, and offers alternative weighting systems that extend beyond the capability of the older form. The revision is usable without extensive guidelines and can be completed within modest time requirements.

For applicants desiring feedback on their proposals, the form provides quite specific ratings and comments throughout the major aspects of the proposal.

The revision was designed for the kind of small grant proposal submitted to the Regional Research Program. It also appears to be generalizable to other categories of proposals. The revision offers other agencies a generic form which could be adapted to specific areas with a modest additional effort.

REFERENCES

Crawford, J. J., & Smith, C. A. (Eds.). C.O.R.D. national research training manual and workbook. Corvallis, Oregon: Oregon State University Press, 1969.

Crawford, J. J., & Kielsmeier, C. Proposal writing: Manual and workbook. Corvallis, Oregon: Oregon State University Press, 1970.

Kielsmeier, C. Development of an adapted system model for the design of college level instruction. Doctoral Dissertation. Los Angeles: University of Southern California, 1970.

Rogers, T. F., Sanders, L. W., & Levenson, B. Small-project grants of the Regional Research Program. Final Report, Project No. 8-B-901. Bureau of Research, U.S. Office of Education, 1970.

APPENDIX A

EXAMPLE OF

EXISTING BUREAU OF RESEARCH

FIELD READER EVALUATION FORM

OE 6017(11-66)

Department of Health, Education and Welfare
Office of Education
Washington, D. C. 20202
Bureau of Research

FIELD READER EVALUATION FORM

Field Reader	Date Mailed	Date Due
Project Officer	Date Returned	
Telephone	Proposal No.	Amount

INSTRUCTIONS--This form is furnished for your use in evaluating the attached proposal. We would appreciate receiving your completed evaluation in the enclosed envelope within three (3) weeks unless otherwise indicated. If you cannot review the proposal within that time, return it unevaluated so that it may be sent to another Reader for review. Since the Field Reader Evaluation is one of the principal factors in determining final action on a proposal, we request that you be as thorough and explicit as possible in your responses. Please fill in pages 1 to 4 and return the entire form to us. If you have any questions concerning the proposal, feel free to telephone the Project Officer at the number listed above. Please return the proposal along with this evaluation form.

SUMMARY SHEET

1. Place an "X" in the bracket which best represents your recommendation concern- the disposition of the enclosed proposal, and provide a brief rationale below the recommendation. (Rationale: include a statement supporting your recommendation and an elaboration of suggested modifications if you indicated "Provisional Approval")

   [] Approval--Proposal worthy of support as proposed

   [] Provisional Approval--Proposal worthy of support with negotiable modifications

   [] Disapproval--Proposal not worthy of support

   [] Deferral--Proposal unable to be evaluated without additional information

2. If you gave "Approval" or "Provisional Approval" to the proposal, circle the figure below which most accurately defines your over-all rating:

(High) 1 2 3 4 5 (Low)

3. You have been selected to review this proposal as one of a group of field readers because of your particular competence in the field. Please write a detailed analysis of the proposal as it relates to your area of specialization. Continue on a separate sheet if necessary

4. For each of the four criteria listed below, please indicate in what ways the proposal does or does not meet acceptable standards. Be as specific as possible in your comments, since they will be used in discussing the proposal with the initiator (without reference to the source). Attach additional sheets if necessary.

   A. Educational Significance (Does the proposal address itself to an important educational problem? Does the proposal have a sound theoretical basis? Can the anticipated results be sufficiently generalized? What is the relation to similar known research?)

   B. Personnel and Facilities (Have the principal investigators the professional competence and experience to carry out the work of the proposal? Does the applicant or applicant organization give assurance of the necessary facilities--space, personnel, equipment, etc.--for performance of the work?)

C. Research Design (Are the problems, objectives, procedures, and the relationships among all three clearly and logically stated? Does the statement of procedures to be followed include, where applicable, information on sampling techniques, controls, data to be gathered, instruments to be used, and statistical and other analyses to be made?)

D. Economic Efficiency (Is there a favorable relationship between the probable outcome of the project and the total effort expended?)

APPENDIX B

EXAMPLES OF

PROPOSAL EVALUATION FORMS USED BY VARIOUS AGENCIES

B-1: OE Form 9020. This is a current form used by the Office of Education and is quite similar to the existing Bureau of Research form described in this study.

B-2 through B-10: Examples of forms currently in use. Agency markings have been removed.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

TECHNICAL AND/OR PROFESSIONAL SERVICES CONTRACTOR
(Field Reader) PROPOSAL EVALUATION

FIELD READER	DATE MAILED	DATE DUE
PROJECT OFFICER	DATE RETURNED *(OE USE ONLY)*	
TELEPHONE *(area code, number, and extension)*	PROPOSAL NUMBER	AMOUNT $

INSTRUCTIONS: This form is furnished for your use in evaluating the attached proposal. We would appreciate receiving your completed evaluation in the enclosed envelope by the due date noted above. If you cannot review the proposal within that time, please return it immediately. Please fill in pages 1 to 4 and return the entire form to us; be as thorough and explicit as possible in your responses. If you have any questions concerning the proposal, feel free to contact the Project Officer.

SUMMARY SHEET

1. RATE EACH OF THESE MAJOR SECTIONS IN THE PROPOSAL EVALUATION BY CIRCLING A NUMBER ON THE SCALE BELOW. DISCUSS THESE RATINGS IN DETAIL UNDER ITEMS 3A, B, C, AND D.

	LOW				HIGH
EDUCATIONAL SIGNIFICANCE:	1	2	3	4	5
PROJECT DESIGN:	1	2	3	4	5
PERSONNEL AND FACILITIES:	1	2	3	4	5
ECONOMIC EFFICIENCY:	1	2	3	4	5

2. PLACE AN "X" IN THE BOX WHICH BEST REPRESENTS YOUR RECOMMENDATION CONCERNING THE DISPOSITION OF THE ENCLOSED PROPOSAL, AND PROVIDE A BRIEF RATIONALE BELOW THE RECOMMENDATION. *(Rationale: include a statement supporting your recommendation. If you indicate "Provisional Approval" or "Deferral," specify provisions or information needed.)*

- ☐ APPROVAL – Proposal worthy of support as proposed. No significant modifications needed.
- ☐ PROVISIONAL APPROVAL – Proposal is basically worthy of support with specific modifications indicated.
- ☐ DEFERRAL – Additional information is necessary for proposal evaluation. The formulation of a recommendation is not possible without further information.
- ☐ DISAPPROVAL – This application should not be supported in its present form.

SIGNATURE OF FIELD READER	DATE

3. FOR EACH OF THE FOUR CRITERIA LISTED BELOW, PLEASE INDICATE IN WHAT WAYS THE PROPOSAL DOES OR DOES NOT MEET ACCEPTABLE STANDARDS. BE AS SPECIFIC AS POSSIBLE IN YOUR COMMENTS, SINCE THEY WILL BE USED IN DISCUSSING THE PROPOSAL WITH THE INITIATOR WITHOUT REFERENCE TO THE SOURCE. ATTACH ADDITIONAL SHEETS IF NECESSARY

A. EDUCATIONAL SIGNIFICANCE *(Does the proposal adequately address itself to an important special educational problem? Can the anticipated results be sufficiently generalized? Are the anticipated outcomes directed toward changes in educational practice, and can they be applied? What is the potential impact on children or teachers?)*

B. PROJECT DESIGN *(Are the problems, objectives, procedures, and expected products, and the relationships among all four clearly and logically stated? Does the statement of procedures to be followed include all applicable design components? Are the criterion measures appropriate for the questions asked and analyses used? Are proposed timelines realistic?)*

3C. PERSONNEL AND FACILITIES *(Have the principal investigators the professional competence and experience to carry out the work of the proposal? Does the applicant give assurance of the necessary facilities - space, personnel, equipment, subject samples, and other supportive administrative services for performance of the work? Are there adequate numbers of personnel and are they assigned efficiently to accomplish the objectives of the project?)*

3D. ECONOMIC EFFICIENCY *(Is there a favorable relationship between the probable outcome of the project and the total funds expended or between the projected activities and total funds? Please note any budget items that are questionable in terms of being either unrealistically high or low.)*

4. OTHER PERTINENT INFORMATION OR ADDITIONAL COMMENTS, IF ANY

GRANT PROPOSAL RATING SHEET

RESEARCH PROJECT

PROPOSAL NO.: 91- TITLE:

PRINCIPAL INVESTIGATOR:

PROPOSED BY:

Recommendation of Panel Member

☐ Approve ☐ Approve Provisionally (Indicate changes needed in Comments)

☐ Defer Decision ☐ Disapprove/Resubmit ☐ Disapprove

Enter explanations pertinent to these ratings in Comments below:

COMMENTS:

Signature of Panel Member _____ Date _____

UNSOLICITED PROPOSAL EVALUATION FORM

(Please Read Instructions on Reverse Before Completing)

1. SUBMITTER:	2. PROPOSAL NUMBER:
	3. DATE RECEIVED:
	4. FORWARDED FOR EVALUATION TO:
	5. DATE
	6. NUMBER OF COPIES:

7. TITLE

8. PROPOSAL SHOULD ALSO BE EVALUATED BY:

9. TECHNICAL FACTORS:	EXCELL.	GOOD	FAIR	POOR	OTHER
A. COMPLETENESS OF PROPOSAL					
B. SOUNDNESS OF APPROACH					
C. ADEQUACY OF FACILITIES					
D. ABILITY OF INVESTIGATORS					
E. VALUE AS A RESEARCH PROJECT					
F. REALISM: LEVEL-OF-EFFORT VS PROPOSED ACCOMPLISHMENTS					
G. REALISM: LEVEL-OF-EFFORT VS PROPOSED COSTS					

10. WHAT CONTACT HAS YOUR OFFICE HAD WITH SUBMITTER? WHAT INFORMATION HAS HE BEEN GIVEN? IF PROPOSAL IS CARRY-ON TO EXISTING OR PREVIOUS CONTRACT, IDENTIFY IT.

11. FUNDING ☐ IS ☐ IS NOT PLANNED BY THIS OFFICE.	12. ESTIMATED DATE OF FUNDING:

13. EVALUATOR'S COMMENTS:

NAME OF EVALUATOR	15. CONCURRENCE	16. DATE

GUIDE FOR THE PREPARATION OF SUMMARY STATEMENTS

Use the headings listed below; do not substitute "evaluation" for CRITIQUE. Every summary statement should include a RESUME, a DESCRIPTION, and a CRITIQUE. Three sections may be sufficient for disapproved applications, but all of the headings should be used in other summary statements. Complete sentences should be used throughout; the budget, for example, should not be described as simply "Reasonable" or "Adequate." Do not use jargon, vernacular expressions, and undefined abbreviations in reporting the scientific review. Colloquial language used in the reviewers' comments should be presented in a literary style acceptable for scientific reports.

RESUME. Briefly summarize the proposed project and the essential reasons for the recommendation.

DESCRIPTION. Present a concise description of the proposed project, including the aims, procedures, and background.

CRITIQUE. Discuss the strengths and weaknesses of the proposed project. Are the aims logical? Is the approach valid and adequate? Are the proposed procedures feasible and appropriate? Will the research produce new data and concepts or confirm existing hypotheses? What is the significance and pertinence of the proposed study in relation to the state of the field and the importance of the aims? For continuation and supplemental requests, comment on past progress. The CRITIQUE must reflect the priority score.

INVESTIGATORS. Discuss the competence and background of the investigators. Since only the name of the principal investigator appears routinely on the summary statement, names should be used in the discussion of other personnel.

RESOURCES AND ENVIRONMENT. Discuss the facilities, the equipment, and, when appropriate, the extent of departmental and interdepartmental cooperation. Comment on the availability of any unusual resources, such as special animal species, tissue preparations, or clinical case material.

BUDGET. Is the requested budget realistic? Are all of the requested items justified? Itemize and provide specific reasons for reductions in time or amount recommended. For supplementary requests, comment on the supplementary budget in relation to the approved parent budget.

OTHER HEADINGS:

HISTORY. An involved explanation or description of the administrative background should be included as a special section after the RESUME.

CRITIQUE (MINORITY). Include a minority report when two or more members disagree with the recommendation. CRITIQUE (MINORITY) should follow the CRITIQUE (MAJORITY).

HAZARDOUS PROCEDURE. Comment on the nature of potentially hazardous materials in relation to the proposal and resolution by Study Section.

EXECUTIVE SECRETARY'S NOTE. Call attention to possible policy questions or other administrative aspects of the application.

ADDITIONAL CONSIDERATIONS:

Collateral Opinions. Summarize when pertinent and influential to the recommendation. Do not mention the reviewer's name or quote him directly.

Deferral for Project Site Visit or for Additional Information. Indicate the reasons for the deferral and how the Study Section used the information obtained in reaching its recommendation. This should logically conclude the CRITIQUE.

DRG - Rev. January 1972

Guidelines for Preparing Outside Opinions

The following general areas should be covered in your critique. Naturally these are general areas and do not in any way preclude you from including evaluative comments in other areas.

1. Uniqueness and Significance: How significant is the proposed project in terms of local, regional, or national import? Has this or related work been undertaken before and/or at another site? If so, where and how does the current project differ or how is it similar?

2. Design: Is the design of the project adequate to its objective? Cite design weaknesses and strengths uncovered along with illustrative examples. This item is obviously very important and sufficient attention should be directed to an evaluation of the design to assure a thorough review of deficiencies and/or strengths.

3. Evaluation: An evaluation plan is an important component in most projects, although certain developmental projects do not lend themselves to a formal evaluation. However, all demonstration projects require an evaluation plan; a demonstration project without an evaluation is a service project and not eligible for support. A detailed review of the evaluation plan should be made citing specific instances where the plan is non-existent, weak, fragmented or directed towards the wrong target.

4. Resources and Collaborative Arrangements: Projects often require for their success the collaboration of a number of organizational units and individuals other than the principal investigator and his immediate staff. Comment on this aspect of the proposal.

5. Principal Investigator and Other Project Personnel: Do the project personnel indicate an adequate familiarity with relevant literature? Does the principal investigator appear competent to direct the project? Who are the major associates of the principal investigator and what are their strengths and weaknesses?

6. Budget: Evaluate major items in the budget and determine appropriateness of their aims to the project. Make specific comments as to items in the budget.

7. Other

SUMMARY RATING FORM

Category Number	0	1	2	3	4	5			
Descriptive Cue / Evaluation Factor	Insufficient Data	Poor	Fair	Good	Very Good	Excellent	Category Number Checked	Differential Weight	Weighted Numerical Value
Understanding of the Problem								3	
Technical Adequacy of Proposed Approach								5	
Suitability of Proposed Schedule								4	
Qualifications of Team Members Proposed								7	
Company Facilities Relevant for Project								1	
TOTAL NUMERICAL RATING									
	Company Rated				Name of Rater				

GUIDELINES FOR REVIEWERS IN THE PREPARATION OF CRITIQUES

1. Read the application carefully. This is important. Reviews based on careless reading are unfair to the applicant and/or to competing applications. They also reflect badly on the reviewer and on the Study Section.

2. If you have any questions which may reasonably be asked of the applicant and without the answers to which you cannot prepare an adequate review, report them promptly to the Executive Secretary to allow time for him to relay the questions to the applicant and to distribute the reply to the reviewers.

3. Principal components of reviews: Primary and Secondary reviewers' critiques are the bases for much of the discussion of applications at study section meetings. They also are the prime source of data used by the Executive Secretary in preparing Summary Sheets. Other sources include the application itself, the Study Section discussion, and site reports. You can facilitate the review process by following this outline:

a. Description: If you are the primary reviewer, you must write a description of the proposed project. In this section you should provide your understanding, without evaluative comment or tone, of the objectives, hypotheses, and methods of the project. It should not include description of the investigator, resources and environment, or budget, except where these are essential to the main description. They can be described more fully in the appropriate sections which follow.

b. Uniqueness and Significance: Comment on the significance of the proposed project in terms of local, regional, or national import. Has this or related work been undertaken before and/or at another site? If so, where - and how does the current project differ or how is it similar?

c. Design: Is the design of the project adequate to its objective? Cite design weaknesses and strengths uncovered along with illustrative examples. This item is obviously very important and sufficient attention should be directed to an evaluation of the design to assure a thorough review of deficiencies and/or strengths.

d. Evaluation: An evaluation plan is an important component in most projects, although certain developmental projects do not lend themselves to a formal evaluation. However, all demonstration projects require an evaluation plan; a demonstration project without an evaluation is a service project and not eligible for support. A detailed review of the evaluation plan should be made citing specific instances where the plan is non-existent, weak, fragmented or directed towards the wrong target.

e. Resources and Collaborative Arrangements: Projects often require for their success the collaboration of a number of organizational units and individuals other than the principal investigator and his immediate staff. Comment on this aspect of the proposal.

f. Principal Investigator and other Project Personnel: Do the project personnel indicate an adequate familiarity with relevant literature? Does the principal investigator appear competent to direct the project? Who are the major associates of the principal investigator and what are their strengths and weaknesses?

g. Budget: Evaluate major items in the budget and determine appropriateness of their aims to the project. Make specific comments as to items in the budget.

h. Other

i. Recommendation. You may recommend approval in time and amount, approval in reduced or increased time and/or amount, deferral for further information (which usually but not necessarily indicates a site visit), or outright disapproval. When recommending approval in reduced or increased amount, please indicate precisely where the changes are to be applied and how large they are to be in each category, and indicate the rationale if it is not already evident from your foregoing comments. Reductions should be related to particular budget items which are excessive or to aspects of the project which the study section feels should be deleted or altered. The obverse applies to increases.

You may also recommend shifts in budget allocations.

Reviewers customarily refrain from presenting their recommendations until all written reviews have been presented to the study section. Therefore, please refrain from stating a recommendation until it is called for by the chairman.

This concludes the outline of a typical review. It corresponds closely to the format of the Summary Statements prepared by the Executive Secretary after study section action has been completed.

One Final Note: It would be helpful to the Executive Secretary if you would instruct your typist to double-space.

FORM FOR USE BY THE REVIEW PANEL IN SCORING COMPETITIVE GRANT RESEARCH PROPOSALS

Submitted for Research on _____

Institution _____

Project Title _____

_____

_____

	Score *
1. Relevance to present and future research needs.	_____
2. Quality of proposal.	_____
3. Competence of principal investigator(s)	_____
4. Amount of time and attention principal investigator(s) will devote to the project.	_____
5. Adequacy of facilities and equipment.	_____
6. Quality of the research program in the institution in the relevant area.	_____
7. Feasibility of attaining the objectives.	_____
8. Relationship to on-going and other proposed research in the scientific community broadly.	_____

*Rating Scores: 3 - Superior; 2 - Satisfactory; 1 - Fair; 0 - Poor
Please do not score those criteria (1-8) for which you do not have sufficient information; simply insert a dash to indicate it was not overlooked.

Overall adjective rating or proposal:

Outstanding	☐
Outstanding with revision **	☐
Acceptable	☐
Unacceptable	☐

** If revision is recommended, how should propcsal be revised:

Comments:

PROPOSAL RATING SHEET

Reviewer

Proposal No.:
Investigator:
Institution:
Please return to:
If possible by:

Comments (*Continue on additional sheet if necessary*)

OVERALL RATING
☐ EXCELLENT
☐ VERY GOOD
☐ GOOD
☐ FAIR
☐ POOR

Signature of Reviewer:

Other suggested reviewers (*optional*):

Evaluation of Policy Related Research

Title _____ Proposal No. _____

Research Area _____

A. Evaluation Design—Comments on innovative ideas, grasp of the problem, originality, etc., as well as misconceptions, oversimplifications, incorrect formulation, adequacy of models, etc.

1. Design for Assessing Internal Validity—methods proposed to assess internal validity are appropriate and cost-effective. Comments:

   a. Facts _____

   b. Opinions _____

2. Design for Assessing External Validity—methods proposed to assess external validity are appropriate and cost-effective. Comments:

   a. Facts _____

   b. Opinions _____

3. Methods for Establishing Policy Utility—criteria for judging policy relevance of particular studies and of sets of related research bearing on given policy instruments. _____
Comments:

a. Facts _____

b. Opinions _____

4. Knowledge of Policy-Related Research Literature _____
Comments:

a. Facts _____

b. Opinions _____

Evaluation Design Overall Average Rating

B. Dissemination and Utilization—Comments on innovative ideas, grasp of the problem, originality, etc., as well as misconceptions, oversimplifications, incorrect formulation, adequacy of models, etc.

1. Proposed format of written report—understandable to funders and to policy makers at the federal level, and local level, and by interested citizen groups. _____
Comments:

a. Facts _____

b. Opinions _____

2. Effectiveness and originality of dissemination and utilization plans—Is user community delineated and will suggested strategy result in use of the research by that community? _____
Comments:

a. Facts _____

b. Opinions _____

Dissemination and Utilization Overall Average Rating [ ]

C. Management Plan

1. Presence of Required Technical Competence—Researchers' experience in evaluation research; various skills necessary for conduct of project available in house. If not, have arrangements been made to obtain them outside? _____
Comments:

a. Facts _____

b. Opinions _____

2. Program Management—Prior experience in managing similar activities; the project leader control over the direction and effort of the team members; support provided by management to project leader; utilization of consultants, NSF advice and feedback and/or other personnel and resources at the key decision points or other appropriate times. _____
Comments:

a. Facts _____

b. Opinions _____

3. Financial Management—Does the proposer have a system of reflecting actual costs incurred and for controlling costs? (To be evaluated by GCO and not reviewers.)

Overall Average Rating
Management Plan ☐

SUMMARY

Evaluation Design _____

Utilization Plan _____

Management Plan _____

Overall Rating of Proposal _____

D. Comments not to be made available to principal investigator.

_____

_____

_____

_____

_____

_____

Ranking _____

SUGGESTED GUIDELINE FOR REVIEWER'S EVALUATION

Reviewer:
Review Date:

Control Number:

Title of Proposal:

Organization:

Principal Investigator:

1. Validity and scientific merit of basic objective and rationale:
2. Strengths of proposal:
3. Weaknesses of proposal:
4. Adequacy of personnel to the proposed research:
5. Adequacy of facilities:
6. Is equipment requested appropriate:
7. Recommendation: 1) Support as proposed; 2) No support; 3) Support in part as follows:
8. Opinion as to the "relevance" of this proposal and/or the length of time required to realize a definite contribution
9. Other comments:
10. Rate on basis "Scientific Merit": please give a score of 1-5 (1 being highest).

APPENDIX C

EXAMPLE OF

REVISED FIELD READER EVALUATION FORM

Department of Health, Education, and Welfare
Office of Education
Washington, D. C. 20202

Bureau of Research

FIELD READER EVALUATION FORM

Field Reader	Date Mailed	Date Due
Project Officer	Date Returned	
Telephone	Proposal No.	Amount
		$

INSTRUCTIONS

This form is furnished for your use in evaluating the attached proposal. We would appreciate receiving your completed evaluation in the enclosed envelope by the above due date, unless otherwise indicated. If you cannot review the proposal within that time, return it unevaluated so that it may be sent to another Reader for review.

Since the Field Reader Evaluation is one of the principal factors in determining final action on a proposal, we request that you be as thorough and explicit as possible in your responses. Please complete each of the items, including ratings and comments. Make your comments as specific as possible.

The items have been selected to be applicable to a wide range of proposals. If you do consider an item inapplicable, mark it N/A, with appropriate comments.

In addition to assisting agency evaluation of the proposal, your ratings and comments will also be used to provide feedback to the proposal applicant. However, the identity of Field Readers will not be revealed to applicants.

The final page of the form consists of a summary sheet providing for your overall rating of the proposal and your recommendations for its disposition. An additional space on the summary sheet is provided for any comments to USOE exclusively. These comments will not be sent to applicants.

If you have any questions concerning the proposal, feel free to telephone the Project Officer at the number listed above.

PROBLEM

1. Significance of the problem to society:

1	2	3	4	5	6	7	8	9
	Minor			Moderate			High	

Comments (as part of your comments, specify the area within which you are rating the significance of the problem):

2. Significance of the problem to science (or to the general advancement of knowledge):

1	2	3	4	5	6	7	8	9
	Minor			Moderate			High	

Comments (as part of your comments, specify the area within which you are rating the significance of the problem):

3. Clarity of statement of the problem:

1	2	3	4	5	6	7	8	9
	Inadequate			Moderate			Excellent	

Comments:

4. Relationship of the problem to theory:

1	2	3	4	5	6	7	8	9
Not clear or reflects lack of understanding				Moderate			Clearly Integrated	

Comments:

5. Relationship of the problem to previous research (or development):

1	2	3	4	5	6	7	8	9
Not clear, incomplete, or reflects lack of understanding				Moderate				Clearly stated and well integrated

Comments:

6. My overall rating of the problem section of this proposal is:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate			Excellent	

Comments (Please include your ratings and comments on any important dimensions of the proposal not covered by the previous items.)

OBJECTIVES

1. Relationship of the objectives to the stated problem:

1	2	3	4	5	6	7	8	9
Obscure, incomplete, or reflects lack of understanding				Moderate				Well integrated and appropriate

Comments:

2. Extent to which the objectives are stated in measurable terms:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate			Excellent	

Comments:

3. My overall rating of the objectives section of the proposal is:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Excellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

PROCEDURES

1. The appropriateness of the design of the project to the solution of the problem is:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Highly appropriate

Comments:

2. The relationship of the procedures to the implementation of the design of the project is:

1	2	3	4	5	6	7	8	9
Obscure or inadequate				Adequate				Excellent

Comments:

3. Provisions for baseline or comparison groups:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Excellent

Comments:

4. Description of population and sample is:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Clear & appropriate

Comments:

5. Appropriateness of the sample selection procedures is:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Highly appropriate

Comments:

6. Extent to which controls are provided:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Excellent

Comments:

7. Measures specified to assess the attainment of project objectives:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Excellent

Comments:

8. Data collection procedures are:

1	2	3	4	5	6	7	8	9
Inadequate				Adequate				Excellent

Comments:

9. The approrpiateness of the data analysis is:

1 2 3 4 5 6 7 8 9

Inadequate Adequate Highly appropriate

Comments:

10. The extent to which the project schedule is appropriate to the tasks is:

1 2 3 4 5 6 7 8 9

Inadequate Adequate Highly appropriate

Comments:

11. My overall rating of the procedures section of the proposal is:

1 2 3 4 5 6 7 8 9

Inadequate Adequate Excellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

PERSONNEL AND FACILITIES

1. Qualifications of staff to conduct this project:

1 2 3 4 5 6 7 8 9

Inadequate Moderate Excellent

Comments:

2. Extent to which staff capabilities are related to task requirements:

1 2 3 4 5 6 7 8 9

Inappropriate--too junior- or top-heavy Moderate Highly appropriate

Comments:

3. Time commitments to the project from staff:

1	2	3	4	5	6	7	8	9
Inadequate--under-staffed or overstaffed				Moderate				Highly appropriate

Comments:

4. Space, equipment, and other facilities for this project:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate				Excellent

Comments:

5. Organizational support for the project, including commitments from cooperating organizations if necessary:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate				Excellent

Comments:

6. My overall rating of this section of the proposal is:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate				Ex ellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

EFFICIENCY/IMPACT

1. The relationship between the specified costs of the project and the proposed activities is:

1	2	3	4	5	6	7	8	9
	Inappropriate			Moderately appropriate				Highly appropriate

Comments:

2. The relationship between the probable outcome of this project, in terms of its contribution and the investment required, is:

1	2	3	4	5	6	7	8	9
	Unfavorable			Moderate				Highly favorable

Comments:

3. Provisions for dissemination/diffusion of the results of the project are:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate				Excellent

Comments:

4. My overall rating of this section of the proposal is:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate				Excellent

Comments (Please include your ratings and comments on any important dimension of the proposal not covered by the previous items.)

SUMMARY SHEET

Overall rating of this proposal:

1	2	3	4	5	6	7	8	9
	Inadequate			Adequate			Excellent	

My recommendation for the disposition of this proposal is:

[ ] Approval--worthy of support as proposed.

[ ] Provisional approval--worthy of support with the following negotiable modifications (specify the modifications needed):

[ ] Disapproval--not worthy of support

The major factors in this proposal contributing to my overall rating and recommended disposition were (briefly identify the factors or refer to previous items):

Comments for funding agency only. (These comments will be treated as confidential and will not be made available to proposal applicants.)

Signature of Field Reader

Date: _____

Proposal No. _____